

Water system seen as example

Groundwater Replenishment System is touted for its friendliness to the environment.

By Candice Baker

[Costa Mesa Daily Pilot](#): A recent visit by the state's second-in-command reminded residents that in addition to plastic bags and aluminum cans, much of its sewer water is recycled.

The Orange County Water District hosted state Lt. Gov. John Garamendi and state Assemblymen Van Tran and Mike Duvall Jan. 30 for a tour of the Groundwater Replenishment System in Fountain Valley.

The system is the largest purification project of its kind in the world; the amount of water it produces can supply half a million area residents each year, and it is not affected by drought.

"Orange County's water recycling program demonstrates one of the critical, most useful solutions to California's looming water crisis. We cannot afford to pump water 300 miles over the mountains and dump it in the ocean. This program is good for the environment and it saves energy too," Garamendi said.

The tour was a special treat for Duvall, who represents an area of central-north Orange County.

He previously served as a director for the replenishment system, as well as on the Orange County Sanitation District and the Santa Ana River Flood Protection Agency.

The system went online at the beginning of 2008, just months before Gov. Arnold Schwarzenegger declared a statewide drought and water supply emergency.

Using an innovative approach, highly treated sewer water — which used to run directly into the ocean — is conveyed through three main stages at the plant: microfiltration, reverse osmosis and ultraviolet light with hydrogen-peroxide-advanced oxidation treatment.

After being purified to standards that exceed those of bottled water, as well as state and federal standards, the water is added to a seawater barrier or is pumped 13 miles to percolation ponds in Anaheim.

From there, the water — nearly as pure as distilled water — seeps deeply underground into aquifers, where it blends with the county's other groundwater sources.

The system can be doubled in size as demand and funding make possible, as state agencies are working to have a 20% water conservation rate by 2020, as outlined by the state requirements.

One of Schwarzenegger's priorities is to cut urban water consumption by 20%.

Local officials said each district and municipality must figure out how to implement its own conservation measures.

Options to increase the state's water supply have fallen flat in recent years, officials said, leaving local agencies wondering how to make do with what they already have.

California is in the second year of a severe drought, officials said. Measures that can be taken by citizens include installing low-flow shower heads and high-efficiency appliances; xeriscaping, the use of plants like thyme or cactus instead of plants that require irrigation; or laying artificial turf in place of grass.

On an agency level, many organizations around the state are considering charging more for water or developing a water-rationing program.

Locally, the replenishment system has attracted attention from around the world for its pioneering method of reducing dependence on the Colorado River and other sources.

Tour participants examined all three treatment areas, then ended the day by sampling freshly treated water.

Some dignitaries said the water tasted "flat;" as the liquid is completely pure, it lacks the minerals and other components that add flavor to bottled and tap water.

"This is water that is pure," Garamendi said. "This is water that is safe to drink. This is water that we already are using here in Orange County."